Division 3, 6, and 8 Review of Draft Framework Workshop for Environmental Management Plan

ATTENDEES:

Jim Rerko/NCDOT DIV 6
Jerry Yarborough/ NCDOT DIV 3&6
Johnny Ransdell/ NCDOT DIV 8
Terry Gibson/NCDOT 6
Greg Burns/NCDOT DIV 6
Ray Stone/NCDOT DIV 6
David Thomas/NCDOT DIV 3
Joe Blair/NCDOT DIV 3
Allen Pope/NCDOT DIV 3
Mason Herndon/NCDOT DIV 3
Tim Johnson/NCDOT DIV 8
Art King/NCDOT DIV 8
Richard Hancock/NCDOT Div 8
Ehren Meister/NCDOT OEQ
Don DeWolfe/CH2M HILL
Lauren Elmore/CH2M HILL
Kathryn Benson/CH2M HILL

FROM: CH2M HILL

DATE: December 12, 1:00 PM

Division 3, 6, and 8 employees met on December 12th in the Division 6 conference room to review and discuss the draft Environmental Management Plan (EMP). The objectives of the meeting were to present the draft framework, obtain feedback from North Carolina Department of Transportation (DOT) Division and District staff, and identify the environmental activities already being performed. The draft EMP framework was reviewed with the entire group and then the attendees split into small groups to discuss each framework objective in detail. This memorandum summarizes the group discussions.

Introductions and Meeting Objectives

Ehren Meister opened the meeting, introduced the CH2M HILL team, and provided a general summary of the meeting's objectives. Don DeWolfe with CH2M HILL introduced the CH2M HILL staff members and asked the DOT participants to introduce themselves. Don presented the goals for the Environmental Management Plan, noted that the purpose of the meeting is to obtain feedback from staff, and described how Division input will be used to develop the final EMP.

Project Background

Don identified the EMP sponsors and the core team at DOT that helped to develop the EMP framework. The Framework is based upon existing DOT documents and additional information from benchmarked agencies that have excellent environmental management systems or programs. A few of the DOT documents were identified and a copy of the Environmental Stewardship Policy was provided to the meeting attendees. The

benchmarking agencies included other State Departments of Transportation, cities, and military facilities.

Don DeWolfe reviewed the main goals for the EMP:

- The EMP should be clear, concise, workable, realistic, and achievable for all levels of the organization.
- The EMP will provide a way to clearly document the cost effectiveness of investments made on environmental initiatives.
- The EMP will incorporate previous environmental initiatives where applicable.
- The EMP will include methods for communicating environmental performance measures to all levels so that employees recognize and understand what the Department is doing.
- Obtain broad acceptance of the EMP from the Board, employees, and the public.

The EMP framework was reviewed. The meeting participants were asked to think about the questions that they will be asked to answer in the small group sessions:

- What are you already doing that supports the EMP Framework?
- What are you doing that is missing from the EMP framework?
- What EMP objectives are not applicable to you?

After the objectives were presented, Don asked the group to identify anything missing and to share their initial thoughts about the framework.

Break

Small Group Sessions

After the break the meeting attendees were split into two groups. Each group reviewed the individual framework pieces and identified the activities they are doing under each section and any activities that don't fit under the framework pieces. The small group discussions were led by CH2M HILL staff. Group comments were recorded on flip charts. After each framework piece was reviewed, the groups came back together and CH2M HILL presented the highlights of the small group discussions.

Objective A - Ensure employee compliance with the Environmental Stewardship Policy

1) Achieve zero notice of violations (NOV) on projects, facilities, and operations

2) Conduct root cause analysis and develop recovery plans for correction of NOV occurrences

3) Build upon and enhance internal programs which demonstrate NCDOT's commitment to the natural and human environment

Current Activities:

- Division 3 and 6 have not received any NOVs
- The Division does not want project conditions to exist that require ICA issuance
- Divisions are proactive with NOV avoidance by bringing potential NOVs to the appropriate Resource Agency's attention with a plan on how to correct the situation
- Utilize immediate corrective action (ICA) only for sediment and erosion control issues
- Monthly field erosion and sediment control inspections and permit compliance inspections are conducted on large projects
- Contractors receive ICA's, this is DOT's tool for managing contractors
- DOT employees are expected to know the correct environmental action
- Coordination between DEO and roadside field operator engineers helps with communication and reduces potential problems
- Staff are expected to identify and solve problems before resource agencies get involved
- DEO is responsible for permitting and determines needed level of environmental review
- DEO is available if problems come up
- DEO acts as a reference, provides assistance and conducts investigations
- DEO works one on one with engineers out in the field and in the office
- DEO identifies specific problem areas/ locations or topics
- On site staff are responsible for permit compliance and project environmental aspects
- Compliance is discussed with all staff, along with the expectations for Environmental Stewardship
- Division has been trying to instill an environmental ethic in all staff members
- The Environmental Stewardship policy is communicated to all levels
- Employee performance is linked to Environmental Stewardship
- Have been affecting change toward better environmental stewardship over the last 5 years through the DEOs and for the last 20 years through the erosion and sediment control program (1973)
- In Division 6: use pre-construction meeting to go over environmental and permit conditions and constructability (separate meeting from traditional pre-construction meeting)
- Erosion control inspector reviews plans before they are submitted
- Employees have the authority to stop work on a project if they see problems

Comments/Suggestions:

- NOVs should not be the main measure because the DOT wants to respond to problems before they become NOVs.
- Get lower level employees involved in the review of erosion and sediment control plans
- Additional training on Environmental Stewardship would be beneficial. Explore the potential of full–day training for field employees.
- Classroom training is not good for equipment operators; provide on-site training and examples

- Annual environmental stewardship or other environmental training is appropriate for positions from division supervisors through maintenance supervisors
- Identify what environmental activities are expected from employees and identify the appropriate/approved methods
- A continuous training program would be beneficial instead of 1 time modules
- Division staff including DEOs and Construction Engineers need to have input at the initial design or planning stages of TIP projects
- The root cause for many NOVs is design selections or constructability issues (can't construct what's on the paper)
- Need better coordination between PDEA and Divisions
- PDEA is a revolving door and it is hard to know what has been coordinated on projects
- PDEA is getting permits without understanding what it takes to construct projects
- Projects let after January 2006 need to be assigned a competent erosion and sediment control person (certified through ITRE)
- Can minimize the likelihood of NOVs before they occur by coordination between DEOs and regulators
- There is an inconsistent interpretation of regulations between Divisions

Objective B - Ensure the compliance of NCDOT and industry partners with state and federal environmental laws, rules and regulations

1) Achieve zero NOVs on projects

2) Achieve zero contract violations related to or as result of adverse environmental impacts

3) Conduct root cause analysis and develop recovery plans for correction of NOV or contract violation occurrences

Current Activities

- Treat employees & contractors in the same way; identify expectations for contractor performance
- Have provided financial incentives for contractors to establish ground cover earlier than required
- Conduct weekly E/C inspections, if conditions do not meet expectations the project will be shut down or an ICA will be issued
- Have developed good relationships based on trust with local environmental representatives (ACOE, DWQ)
- No NOVs in eighteen years for Division 3
- Division 3 provides a letter to contractors that states the DOT expectations and completion date, if these conditions are not met, the contractor will be shut down
- Environmental expectations are somewhat defined for the contractor in the contract

- Contractor receives a green sheet or permit packet at the pre-construction meeting from Resident Engineer prepared by DEO
- Monthly permit compliance notices (PCN) based on erosion and sediment control inspections go to the DEO, the form contains a box that can be checked to let DEOs know that there is a problem
- The internal process for Immediate Corrective Actions (ICAs) works well – often everything is shut down until issues are addressed
- Communication between the DEO, resident engineer and division engineer, keeps projects in compliance

Comments/Suggestions

- Most contractors will work with DOT once you get their attention
- Have become less adversarial with contractors over the last 40 years
- Comments on objective A can be applied to objective B
- The environmental expectations and environmental conditions agreed to by DOT in the permit conditions should be defined in contracts to allow the Resident Engineer to have a way to enforce these conditions
- Include green sheets in contracts (used to occur) that identify the desired project environmental conditions developed during the design and permitting process
- ICAs should be the goal in the framework for erosion and sediment control, NOVs, and Cease and Desist orders, are given by other agencies
- Need to pass fees associated with environmental violations including NOVs on to the contractor
- In regards to permit compliance, DEOs need to have some authority to shut down projects but this could lead to contractor confusion regarding who has the authority (let the authority remain with the Resident Engineer)

Objective C – Build upon and enhance environmental sustainability practices

1) Achieve government recycling mandates to reduce waste and reduce costs
2) Determine the technical feasibility and cost effectiveness of waste reduction measures
3) Evaluate and track additional reduction, recycling, and reuse efforts to continually improve environmental sustainability
4) Implement the Energy Policy

Current Activities

- DOT lets the contractor select when to use recycled pavements, it is the contractor's economic decision
- Utilize alternative fueled vehicles

- Recycle bridge beams into sheds
- Reuse rip-rap for erosion control in some instances (balance this with the hauling cost)
- Sell metal for scrap
- Frequently obtain materials from state surplus
- Recycle all equipment fluids
- DOT re-uses materials when it saves money
- Recycle paper, aluminum cans, tires, scrap metal, fence post, guardrails, asphalt millings, aggregate base course and concrete
- Use chipped tires and fly ash in embankments
- Have an annual goal for recycled materials (ex. require the use of a specific quantity of chipped tires)
- Utilize the pre-construction conference to encourage the use of recycled materials in order to minimize the size and number of waste sites required for a project
- Allow water pumped from borrow sites, dewatering, etc. to be used for dust control
- Use recycled materials on projects (offset blocks, guardrail posts, etc.)
- Currently have a special provision that encourages use of recycled materials in contracts
- Division offices keep track of paper recycling

Comments/Suggestions

- Contractors will re-use materials if it saves them money
- May start requiring hot-in-place asphalt use in certain areas
- Local conditions determine if materials are re-used
- Sometimes it costs more to get the materials to the recycling center than the benefit to DOT
- Recycling and re-use concepts can be applied, but local conditions drive the decisions
- The use of recycled materials when cost-effective should be included in project contracts
- Do not typically keep records of what is recycled on projects
- Need more information on energy policy – what is this?

Objective D – **Enhance air quality management**

1) Identify and measure air quality impacts produced by NCDOT activities
2) Complete air quality analyses in non-attainment and maintenance areas on time
3) Maximize the use of available congestion mitigation and air quality improvement program (CMAQ) funds each year
4) Organize effective regional collaborations with metropolitan and rural planning organizations (MPO's and RPO's)

Current Activities

- Tried four-ten hour day work weeks, they didn't save money but did increase morale

- Four-ten hour days did not decrease fuel consumption (still utilized equipment forty hours/week)
- DOT uses modeling is used to identify air quality impacts
- Use dust control on projects
- Have closed-loop systems in urban areas to maximize efficiency of roadway networks
- An assigned staff member works with MPOs and RPOs
- Division works with MPOs and RPOs at different levels depending on the project or activity

Comments/Suggestions

- Want to increase spending on signal timing
- Would utilize four-ten hour day work weeks if DOT could shut down on the fifth day
- Efficiency doesn't increase with four-ten hour days
- Did not see an increase in accidents while implementing the 4 day work week
- Build truck shelters to decrease time for idling while defrosting windows
- What do RPOs do and how do they plan for air quality?
- MPOs are required to evaluate and consider air quality
- RPOs don't have the expertise to evaluate air quality and don't consider regional issues
- Reduce the "ridiculous" things done with CMAQ funds
- Objective D1 doesn't apply
- MPOs are legal entities that are chartered and FHWA funded
- Need concurrence with MPOs on TIP projects. MPOs have authority so cooperation is important.
- RPOs are state based and have less authority

Objective E - Enhance water quality management

1) Continue to implement enhancements and BMPs related to water quality at facilities and properties
2) Track enhancement and BMP implementation efforts at the project level
3) Identify and track opportunities to enhance water quality through partnerships
4) Cooperate with watershed based approaches where possible

Current Activities

- Maintenance yards implement BMPs to reduce water quality impacts
- Have installed project BMPs to reduce water quality impacts
- Use salt brine which uses less salt than hard salt (but this is more expensive which limits its use and anticipate negative public feedback because salt brine is more visible)
- Respond to spills and conduct clean-up operations (grease and hog waste examples)
- Division and 3 and 6 already do Objective E1 and E2

- Projects attempt to minimize impacts (avoid wetlands, build bridges or culvert instead of filling streams, etc.)
- Division 8 has installed two BMP retrofit sites in the roadway system
- Use wet detention basins and level spreaders
- Division 3 also has BMP retrofit sites
- Division 3 has inventoried all BMPs and is working on developing a contract for monthly inspection and maintenance if needed
- As part of NPDES permit, facilities and maintenance yards conduct BMP inventories and inspections

Comments/Suggestions

- Concerned about long-term maintenance of BMPs
- How often do BMPs need to be maintained and what are the appropriate maintenance procedures?
- Don't know what equipment is needed to maintain BMPs being implemented
- Where does DOT dispose of materials removed from BMPs during maintenance
- Poor access to many BMPs (maintenance and spill response will be difficult)
- Identify how BMP maintenance will be funded
- Don't know what it will cost to maintain the BMPs being implemented
- Don't have enough money to support existing work or employees
- Can't afford to fill vacant positions (have a 20% vacancy rate)
- Can't meet current work expectations, how will they maintain these additional BMPs?
- Share resources between and within divisions
- Suggest regional salt management
- EEP uses watershed approaches by funding EEP (Not sure how well this works)
- Should suggest to DWQ and ACOE to allow mitigation to include funding to upgrade aging utility systems and onsite wastewater facilities. Mitigation credit should be received for this because the problems associated with failing wastewater systems significantly impact the environment more than some activities mitigation is required for now.
- Have not implemented all BMP retrofit sites identified 5 years ago statewide due to lack of funding

Objective F – Enhance land resource management

1) Integrate local land use plans into the comprehensive transportation planning process to meet mobility, economic and environmental goals
2) Continue to manage facilities and property to enhance environmental stewardship and economical land management practices
3) Continue delegation of the erosion and sedimentation control and buffer programs

Current Activities

- Have implemented BMPs on property they are sitting on (maintenance yards, offices, etc.)
- DOH builds and maintains roads
- Have delegation agreement for erosion and sediment control and this works well
- District offices deal with local and access management issues, strategic corridors, etc.
- Divisions are already doing Objective F2 and F3
- DOT performs onsite mitigation, considers roadside populations of threatened or endangered species, accounts for wildlife corridors, uses bridges or culvert to maintain wildlife corridors or controlled access corridors
- Transplant State listed species during construction
- Have changed designs to minimize impacts to endangered species

Comments/Suggestions

- Really need a good land use plan in all counties that includes transportation infrastructure
- Rural NC fights against land use planning
- DOT can impact road access, but doesn't influence development or planning
- DOT cannot drive land use
- In urban areas land use gets bogged down in competing agendas
- DOT preaches land use planning, but cooperation between the cities, counties, and DOT is not happening
- Some municipalities (Cary) have worked successfully with DOT and property owners regarding access plans (Cary actually followed the plan agreed upon 10 years earlier)
- DOT should not manage land – we are DOT
- Sell DOT property for revenue
- DOT should not hold onto land purchased for mitigation
- Don't accept land outside of ROW
- If land is purchased then it should be donated to another agency for them to manage
- Agencies with experience in wildlife management etc. should be responsible for the lands
- Is EEP worth the money?
- Land owned by DOT in rural counties decreases the county's tax dollars
- Concern related to workload and NPDES because the County Maintenance Engineer is already overloaded
- Upgrading old facilities is not realistic in the short term due to financial issues, but there is a large backlog because maintenance or upgrade costs have been cut from budgets. It will be tough to make up these costs (could be crisis in future if this practice continues)
- DOT is often held responsible for secondary and cumulative impacts but should not be. Roads are implemented to meet needs not to encourage growth and sprawl.
- Too often the land use plan (if there is one) is changed after road is implemented

- Need to have better local land use plans to integrate transportation into but often this does not occur
- Encourage partnership with Universities to see how well new measures work and if they are cost-effective (ex. bear crossings – if they aren't used by wildlife - why implement?)

Objective G - Accelerate/streamline the environmental component of the project delivery process

1) Zero project delays due to permitting
2) Identify impacts, fund, and monitor the expense allocation to the EEP and other mitigation efforts
3) Identify appropriate mitigation funding sources and allocation of funds in TIP
4) Identify and track opportunities to partner with local governments and agencies to enhance the project delivery process
5) Explore delegation of environmental programs

Current Activities

- Try to get projects to DEO early so they can identify if permits are needed
- EEP helped clear project backlog due to permit issues
- Divisions are doing allocations for EEP
- Divisions are identifying opportunities to partner with local governments and agencies to enhance the project delivery process through meeting with MPOs and RPOs and the TIP process

Comments/Suggestions

- For small projects they wish there were more general permits or categorical exclusions (CEs) available
- Should be able to utilize nationwide permits more often
- Paving secondary roads creates permitting issues even though this work decreases environmental impacts
- Have to get a permit just to extend a pipe (waste of time and resources)
- Projects do experience fewer delays due to permitting since EEP
- Smaller projects are delayed by right of way or workload issues more than by permitting
- Large projects do experience delays due to permitting
- EEP helped clear project backlog due to permit issues
- Divisions are doing allocations for EEP
- No delays due to permitting is impossible
- Does EEP really work?

- EEP could be in trouble in year 3 & 4 because preservation credit will have been used and will need to have new mitigation sites according to the Memorandum of Agreement
- Interest in delegation from DENR and ACOE for maintenance projects and secondary road projects. Could use this to develop trust and then improve the program
- Interest in CAMA delegation
- Agencies need to work with DOT to set consistent requirements for mitigation
- The Merger 01 Process seems broken
- Agencies are inconsistent in what they want and continuously want more
- If you don't give in at some point the Agencies will get you somewhere down the road
- DWQ is the hardest to deal with. They develop unrealistic permit conditions outside of the Memorandum of Understanding.
- DWQ will hold permits "hostage" until last minute if conditions are unrealistic and then force DOT to agree if permit wanted
- DWQ has selective hearing at public hearings and has lost transcripts and tapes when no one has heard a request permit condition and DOT pushes back

Objective H – Implement and maintain the initiatives, programs and process improvements

1) Implement the Environmental Management Plan
2) Develop a comprehensive shared GIS database
3) Continue to enhance training and awareness of the environmental ethics of the Department
4) Develop a risk management plan

Current Activities

- DEO meets backhoe operator on-site and discusses or provides education on what to do and what not to do

Comments/Suggestions

- A comprehensive shared GIS database is needed and would be utilized
- Ensure that the GIS layers developed are accurate and defined ahead of time through Division input
- Don't have different people establishing the GIS database and going in many different directions (make sure there is not wasted effort)
- All layers need to be compatible and utilize the same coordinate system
- Are seeing only bits and pieces of GIS information in the field offices
- Division does have the equipment to utilize GIS
- Make sure Division knows what information is available and where to find it
- Develop an authorized/recognized central GIS inventory to reduce duplication and compatibility issues

- Should create a library of layers, with a catalog, that utilize the same base map (this could be USGS, it doesn't have to be at DOT)
- GIS needs include: pavement condition survey, zoning, land use plans, bridges, signs, drainage areas, etc.
- Training needs to be limited, effective, specific, and short (target your audience and no "feel good" training)
- Training should be more procedure oriented than concept oriented especially for field crews
- "Hands on", on-site training is the most effective and efficient training method for field crews
- Don't repeat training over and over
- Some training could be handled by correspondence
- The "Training Clearing House" could be better utilized not that it just contains Covey material
- The Voelker training was very good and effective
- Hope that the EMP doesn't require a lot of additional training
- Identify environmental expectations for employees
- The "no NOV" message has been received by the Divisions
- Need a state pre-approved BMP list
- Need to develop guidance and a procedure for how to accept subdivision roads to reduce environmental liability associated with inadequate construction issues
- DOT should not take over subdivision roads that are dams
- Need more effective context sensitive solution training for maintenance and field operations potentially a one-day short course

Summary and Conclusions

Public involvement is needed in order to streamline the environmental permitting process. The group provided a number of suggestions regarding the EMP:

- Address the human environment within the EMP process.
- The EMP needs to include methods for identifying tangible results.
- Do not create change for the sake of change.
- The EMP needs to be driven by a specific purpose.

The group also stated that the DOT's relationship with resource agencies needs to change. Some staff felt that DOT gives in too much to other agencies. Communication between the DEO, resident engineer and division engineer, keeps projects in compliance. The DEO works one on one with engineers out in the field and in the office to discuss the environmental aspects of projects. One main concern for the future is the cost and labor associated with long-term maintenance of BMPs.

Next Steps

Further comments can be provided to Ehren Meister with DOT or to J.D. Solomon with CH2M HILL. Employees interested in keeping track of the EMP development process can go to the DOT internet site: http://www.ncdot.org/environment/development/management/. After the Division workshops are completed, the input from staff will be incorporated into the framework and EMP implementation strategies.